

SEQUENCE LISTING

SEQ ID NO:1-- Human Slo2 nucleotide sequence

5 ATGGCGCGGGCCAAAGCTGCCGCGCTCGCCGTCCGAGGGCAAGGCGGGCCCGGGGGCGCCCCAGCCGGCGCCGAGCCCC
 CGAGGAGCCTCACGGGCTCAGCCGCTGCTGCCGCCCCGCGCGGGGCTCCGTGGGCAGCGAGCTGGGCCAGAGGCTTC
 CTGTAGAAGATTTCAGCCTGGACTCCTCCCTGTCTCAGGTCCAGGTGGAGTTCTACGTCAACGAGAACACCTTCAAGGAG
 CGGCTCAAGCTGTTCTTCATCAAAAACCAAGATCGAGCCTGAGGATCCGGCTGTTCAACTTCTCCCTGAAGCTGCTCAC
 CTGCCTGCTCTACATTGTGCGCTCCTGCTCGATGACCCGGCCCTGGGCATCGGATGCTGGGGCTGCCCAAAGCAGAACT
 10 ACTCCTTCAATGACTCGTCTCCGAGATCAACTGGGCTCCTATTCTGTGGGTGGAGAGAAAGATGACACTGTGGGCGATC
 CAGGTATCGTGGCCATAATAAGCTTCCTGGAGACGATGCTTCTCATCTACCTCAGCTACAAAGGCAACATCTGGGAGCA
 GATCTTCCGCGTGCTCTTCGCTCGGAGATGATCAACTCTGCCCTTCATCATCACGATCTTCTGGCCGCGCTGCGGA
 ACCTGTTTCATCCCGCTCTTCTGAACTGTGGTGGCCAGCAGCGCTGGAAAACATGATTAATGACTTCCACCGTGCC
 ATCCTGCGGACACAGTCAGCCATGTTCAACCAGGTCTCATCTCTTCTGCACCTGTGTGCCTCGTTTTACGGGGAC
 CTGCGGCATCCAGCCTGGAGCGGGCGGCGAGAACCTGTCCCTCCTGACCTCCTTCTACTTCTGCATCGTCACCTTCT
 15 CCACCGTGGGTACGGTGACGTACGCCCAAGATCTGGCCATCGCAGTGCTGGTGGTCATCATGATCTGCGTGGCCCTC
 GTGGTGTCTCCACTGCGATTTCGAGGAGCTCGTCTACCTCTGGATGGAGCGGCAGAAAGTCAGGGGGCAACTACAGCCGCCA
 CCGTGCGCAGACGGAGAAGCACGTGGTCTGTGTGTGTCAGTCCCTCAAGATCGACCTTCTCATGGACTTCTGAACGAGT
 TCTACGCCCCACCCCGGCTCCAGGACTATTACGTGGTTCATCTGTGCCCCACGGAGATGGATGTCCAGGTGCGCAGAGTC
 CTGCAGATCCCTCTGTGGTCCCAGCGGTTCATCTACCTCCAGGGCTCTGCACTCAAAGACCAGGACCTCATGCGAGCCAA
 20 GATGGACAATGGGGAGGCTGCTTCATCTCAGCAGCAGGAACGAGGTGGACCGCAGCGCTGCAGACCACAGACCATCC
 TGCGCGCCTGGGCGCTGAAGGACTTCGCCCCCAACTGCCCCCTCTACGTCCAGATCCTCAAACCTGAAAACAAGTTTCAC
 GTCAAGTTTGTGTACACAGTGGTGTGTGAGGAGGAGTCAAGTACGCCATGTGTGGCGCTGAACTGCATCTGCCCGCGAC
 CTCCACCCTCATCACCTGCTGTGTCACACGTCCCGCGCCAGGAGGACAGGAGTCTCCGAGCAGTGGCAGCGCATGT
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 25 TTCACCTACGCGGCTTCCACGCCCCACAAGAATATGGCGTGTGCTCATCGGGCTGAAGCGGGAGGACAACAAGAGCAT
 CCTGTGTAACCCGGGGCCCCGGCACATCTGGCCGCTCTGACACCTGCTTCTACATCAACATACCAAGGAGGAGAACT
 CGGCCTTCATCTTCAAGCAGGAGGAGAAGCGGAAGAAGAGGGCCTTCTCGGGGCGAGGGGCTGCACGAGGGTCCGGCCCCG
 CTGCCCCGTGCACAGCATCATCGCTCCATGTTGGCCATGGACCTGCAGGGCACAGAGCACCGGCCTACGCGAGAGCGGCGG
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 30 AACTGGCCGACAGCTCAGCCCTGCTGCCCTGCGACCTGCTGAGCGACCACTCGGAGGATGAGGTGACGCGCTCGBACGAC
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 CTTTCATGCAGTTCCGCGCAAGGACAGCTACTCTGTGGCTCTTTCCAAACTAGAAAAGAGGGAGCGAGAGAATGGCTCCA
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 40 TCCTTCGTGAAGGACTACATGATCACCATCACCCGCTGCTGCTGGGCTGGACACCACGCGGGCTCGGGGTACCTCTG
 TGCCATGAAAATCACCGAGGGCGACCTGTGGATCCGCACGTACGGCCGCTCTTCCAGAAGCTCTGCTCCTCCAGCGCGG
 AGATCCCCATTGGCATCTACCGGACAGAGGCCAGTCTTCTCCACCTCGGAGCCCCACGACCTCAGAGCCCAGTCCCAG
 ATCTCGGTGAACGTGGAGGACTGTGAGGACACACGGGAAGTGAAGGGGCCCTGGGGCTCCCGCGCTGGCACCGGAGGCGAG
 CTCCCAGGGGCCACACGGGCGGCGGTGACCCCGCAGAGCACCCACTGCTACGGCGCAAGAGCCTGCAGTGGGCCCCGGA
 45 GGCTGAGCCGCAAGGCGCCCAAGCAGGCAGGCCGGGCGGCGCGGCGGAGTGGATCAGCCAGCAGCGCTCAGCCTGTAC
 CGGCGCTCTGAGCGCCAGGAGCTCTCCGAGCTGGTGAAGAACCAGCATGAAGCACCTGGGGCTGCCACCACCGGCTACGA
 GGACGTAGCAAATTTAAGCAGCAGTGTATGTCATGAATCGGGTAAACCTGGGATATTTGCAAGACGAGATGAACGACCACC
 AGAACACCCTCTCCTACGTCTCATCAACCTCCGCCGACACGAGGCTGGAGCCAGTGACATTGTCTATCTCATCCGC
 TCCGACCCCTGGCTCAGTGGCCAGCAGCTCCAGAGCCGGAAGAGCAGCTGCAGCCACAAGCTGTGCTCTGCAACCC
 50 CGAGACTCGCGACGAGACACAGCTCTAA

SEQ ID NO:2-- Human Slo2 amino acid sequence

MARAKLPRSPSEKAGPGGAPAGAAPEEPHGLSPLLPARGGSGVSDVGQRLPVEDFSLDSSLSQVQVEFYVNENTFKE
 RLKLFKIKNRSSRLRLFNPSLKLTLCLLYIVRVLLDDPALGIGCWGCPKQNYSFNDSSSEINWAPILWVERKMTLWAI
 5 QVIVAIISFLETMLLIYLSYKGNIEWEQIFRVSVFLEMINTLPFIITIFWPPLRNLFIPVFLNCWLAKHALENMINDFHRA
 ILRTQSAMFNQVLILFCTLLCLVFTGTGCIQHLELAGENLSLLTSFYFCIVTFSTVGYGDVTPKIWPSQLLVIMICVAL
 VVLPLQFEELVYLWMERQKSGGNYSRHRAQTEKHVVLCVSSSLKIDLLMDFLNEFYAHPRLQDYVYVILCPTEMDVQVRRV
 LQIPLWSQRVIYLGQSALKDQDLMLRAKMDNGEACFILSSRNEVDRTAADHQITILRAWAVKDFAPNCPLYVQILKPKNFH
 VKFADHVCEEBECKYAMLALNCICPATSTLITLLVHTSRGQEQESPEQWQRMYGRCSGNEVYHIRMGDSKFFREYEGKS
 10 FTYAAPFAHKYGVCLIGLKREDNKSILLNPGPRHILAASDTCFYINITKEENSAFIFKQEEKRKKRAFSGQGLHEGPAR
 LPVHSIIASMVAMDLOGTEHRPTQSGGGGGSKLALPTENGSGSRRPSIAPVLELADSSALLPCDLLSDQSEDEVTPSDD
 EGLSVVEYVKGYPNPNPIYVSSPTLCHLLPVKAPFCCLRLDKGCKHNSYEDAKAYGFKNKLIIVSAETAGNGLYNFIVPL
 RAYYRSRKELNPVILLDDNKPDDHFLAICCFPMVYMEGSVDNLDLSLLQCGIIYADNLVVVDKESTMSAEDYMAKAT
 IVNVQTMFRFLFSPSLSIITTELTHPSNMRFMQFRAKDSYSLALSLEKREKRENGSNLAFMFRLLPFAAGRVFSISMLDTLLYQ
 15 SFVKDYMITITRLLGLDTPGSGYLCAWKITEGDLWIRTYGRLEFQKLCSSSAEIPIGIYRTESHVVFSTSEPHDLRAQSQ
 ISVNVEDCEDTREVKGWPGSRAGTGGSSQGRHTGGGDPAEHPLLRKSLQWARRLSRKAPKQAGRAAAAEWISQQRSLY
 RRSERQELSELVKNRMKHLGLPTTGYEDVANLTASDVMNRVNLGYLQDEMNDHQNTLSYVLINPPDTRLEPSDIVYLIR
 SDPLAHVASSSQSRKSSCSHKLSSCNPETRDETQL

SEQ ID NO:3--Human Slo4 nucleotide sequence

ATGGTTGATTGGAGAGCGAAGTGCCCCCTCTGCCTCCAGGTACAGGTTTCGAGATTGCTGCTAGGGGACCAAGGATG
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 AAAACCAGAGATCAAGTCTAAGGATACGCTGTTCAATTTTCTCTCAAATTACTAAGCTGCTTATTATACATAATCCGA
 GTACTACTAGAAACCCCTTCAAGGAAATGAATGGTCTCATATCTTTGGGTGAACAGAAGTCTACCTTTGTGGGGCTT
 25 ACAGGTTTCAGTGGCATTGATAAGTCTGTTGAAACAATATTACTTGGTTATCTTAGTTATAAGGGAAACATCTGGGAAC
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 30 TCTACTGTGGGCTTCGGGGATGTCACTCCTGAAACATGGTCTCCAGCTTTTGTAGTTGCTATGATTGTGTGCTCT
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 35 AGATGGATGACGCTGAGGCTGTTTATTCTCAGTAGCCGTTGTGAAGTGGATAGGACATCATCTGATCACCACCAAT
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 TACGGTAGATGCTCCGGGAATGAAGTCTACACATGTTTGTGAAGAAAGTACATTTTGTGTAATGAAGGAAAGAG
 40 TTTTACATATGCCTCTTCCATGCACACAAAAAGTTGGCGTCTGCTTGATTGGTGTAGGAGGAGGATAATAAAAAACA
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 TCAGCATTTAAAAACCAAGACCAGCAGAGAAAAAGCAATGTGTCCAGGTCGTTTATCATGGACCTTCAGATTACCTGT
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 50 TTTACTACATGGTGGGCTCTATTGACAACCTAGATGACTTACTCAGGTGTGGAGTGACTTTTGTGCTAATATGGTGGTT

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5 TTCTATCACGAGACTTCTGTGTTGGGACTGGACACTACACCAGGATCTGGGTTTCTTTGTTCTATGAAAATCACTGCAGATG
ACTTATGGATCAGAACTTATGCCAGACTTTATCAGAAGTTGTGTTCTTCTACTGGAGATGTTCCCATGGAATCTACAGG
ACTGAGTCTCAGAACTTACTACATCTGAGTCTCAAATATCTATCAGTGTAGAAGAGTGGGAAGACACCAAAGACTCCAA
AGAACAAGGGCACCACCGCAGCAACACCGCAACTCAACATCCAGTGACCAGTCGGACCATCCCTTGCTGCGGAGAAAAA
GCATGCACTGGGCCCCGAAGACTGAGCAGAAAAGGCCCAAAACACTCTGGTAAAAACAGCTGAAAAATAACCCAGCAGCGA
10 CTGAACCTCTACAGGAGGTGAGAAAGACAGAGCTTGCTGAACCTGTGAAAAATAGAATGAAACACTTGGGTCTTTCTAC
AGTGGGATATGATGAAATGAATGATCATCAAAGTACCTCTCTACATCTGATTAACCCATCTCCAGATACCAGAATAG
AGCTGAATGATGTTGTATACTTAATTCGACCAGATCCACTGGCCTACCTTCCAAACAGTGAGCCAGTCGAAGAAACAGC
ATCTGCAATGTCACTGGTCAAGATTCTCGGAGGAAACTCAACTTTGA

15 SEQ ID NO:4--Human Slo4 amino acid sequence

MVDLESEVPPLPPRYRFRDLLLGDQGWQNDVRVQVEFYMENTFKERLKLFFIKNRSSLRIRLFNFSCLKLLSCLLYIIR
VLLNPSQGNEWSHIFWVNRSLPLWGLQVSVALISLFETILLGYLSYKGNIEWEQILRIPFILEIINAVPFIISIFWPSLR
NLFVPVFLNCWLAKHALENMINDLHRAIQTQSAMFNQVLILISTLLCLIFTICIGIHLERIGKKLNLFDLSLYFCIVTF
STVGFGDVTPTWSSKLFVVMICVALVVLPIQFEQLAYLWMERQKSGGNYSRHRAQTEKHVVLVCVSSLKIDLLMDFLNE
20 FYAHPRLQDYVVILCPTMDVQVRRVLQIPMWSQRVIYLQGSALKDQDLLRAKMDDAEACFILSSRCEVDRTSDDHQT
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YGRCSGNEVYHIVLEESTFFAEYEGKSFTYASFHAKKFGVCLIGVRREDKNILLNPGPRYIMNSTDICFYINITKEEN
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25 IIVAAETAGNGLYNFIVPLRAYRYPKELNPIVLLLDNPPDMHFLDAICWFPVYVMVGSIDNLDLLRCGVTFAANMVV
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30 ICNVTGQDSREETQL